

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/712,239
Inventor(s) : Rajeev Chhabra, et al.
Filed : November 13, 2003
Art Unit : 1794
Examiner : Matthew D. Matzek
Docket No. : 9103M
Conf. No. : 8603
Customer No. : 27752
Title : Nonwoven Wipe with Resilient Wet Thickness

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

This Brief is filed pursuant to the appeal from the decision communicated in the Office Action mailed on January 22, 2009.

A timely Notice of Appeal was filed on April 22, 2009.

REAL PARTY IN INTEREST

The real party in interest is The Procter & Gamble Company of Cincinnati, Ohio.

RELATED APPEALS AND INTERFERENCES

There are no known related appeals, interferences, or judicial proceedings.

STATUS OF CLAIMS

Claims 1 to 11 are rejected.

Claims 1 to 11 are appealed.

A complete copy of the appealed claims is set forth in the Claims Appendix attached herein.

STATUS OF AMENDMENTS

No amendment was filed.

SUMMARY OF CLAIMED SUBJECT MATTER

The invention as claimed in independent claim 1 provides a nonwoven substrate comprising at least one undeformed first region and at least one second region. The second region comprises a strained region forming a protruding element extending beyond a surface plane of the substrate. (Page 5, lines 5-34 through Page 6, lines 1-3) The protruding element is locked by a reinforcing means in the second region. The reinforcing means is selected from the group consisting of thermal bonding, chemical bonding, ionic bonding, adhesive bonding and combinations thereof. (Page 6, lines 23-27) The nonwoven substrate retains its thickness when wet. (Page 7, lines 13-16)

The invention as claimed in independent claim 10 provides a wet wipe having a basis weight and a thickness. The wet wipe comprises a nonwoven substrate and a liquid. The nonwoven substrate is subject to a texturing process which does not increase the basis weight. The nonwoven substrate comprises at least one undeformed first region and at least one second region. The second region comprises a strained region forming a protruding element extending beyond the surface plane of the substrate. The protruding element is locked by a reinforcing means in the second region. The thickness of the wet wipe is at least about 30% greater than the thickness of a wet textured wet wipe which does not include protruding elements locked by a reinforcing means. (Page 3, lines 4-13)

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-11 stand rejected under 35 U.S.C. 102(b) as being anticipated by SMITH (US 3,616,157).

Claims 1-11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over DOBRIN (US 6,383,431) in view of SMITH (US 3,616,157).

ARGUMENTS

The Final Office Action has failed to establish a prima facie case supporting the rejection of claims 1-11 under 35 U.S.C. § 102(b) as being anticipated by SMITH

(US 3,616,157) or in the alternative under 35 U.S.C. § 103(a) as obvious over SMITH.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). SMITH does not teach or suggest all of the elements of the Applicant’s claimed invention.

The first regions of the claimed invention comprise undeformed regions. Page 5, lines 19 and 20 describes the first regions as substantially planar and unformed. In addition, page 9 lines 1-4 describes the first regions as portions of the starting substrate that are positioned within the grooved regions 408 of plate 402 and teeth 403 on plate 401 that remain undeformed. Further, independent claims 1 and 10 as written imply that the first regions remain in the plane of the substrate based on the second regions described as strained regions forming protruding elements extending beyond a surface plane of the substrate and the first regions described as being undeformed.

In contrast, SMITH Column 3, lines 20-25 in reference to FIG. 4, describes fibrous portions 28, 30 as extending slantingly and angularly from embossed areas 22. Since Fibrous portions 28, 30 are slanted and angularly oriented, they are not undeformed.

In addition, the second regions of the claimed invention comprise strained protruding elements extending beyond a surface plane of the substrate which are capable of greater geometric deformation than the first regions. (Page 6, lines 4-27 of the specification) For that reason, the strained protruding elements are reinforced to withstand deformation caused by external forces. In contrast, SMITH Column 3, lines 31-45 describes embossed, compacted fibrous areas which lie in planes of substantially parallel top and bottom surfaces of a nonwoven fabric. These compacted areas of SMITH are compressed as opposed to being strained like the second regions of the nonwoven claimed. Also, SMITH does not teach “a strained region forming a protruding element extending beyond a plane of the substrate locked by a reinforcing means” as claimed. In fact, Column 3, lines 31-36, of SMITH teaches that the compacted areas 22 and 24 form a

pattern of intermittently spaced, separate and discrete, embossed, compacted fibrous areas which lie in the planes of the substantially parallel top and bottom surfaces of the nonwoven fabric, whereas the unembossed, uncompacted portions 28, 30 lie between these planes and hingedly connect the embossed, compacted areas. Thus, even though the embossed compacted areas of SMITH may include a resin (Column 8, lines 4-6), the embossed, compacted areas of SMITH are hingedly connected, and therefore, cannot be construed as locked protruding elements as claimed. Consequently, claims 1-11 are neither anticipated by SMITH nor obvious over SMITH.

The Final Office Action has failed to establish a prima facie case supporting the rejection of claims 1-11 under 35 U.S.C. § 103(a) as being unpatentable over DOBRIN (US 6,383,431) in view of SMITH (US 3,616,157) and Curro et al. (US 2002/0034912 A1)

The test for patentability under 35 U.S.C. § 103(a) requires that (1) the scope and content of the prior art be determined; (2) differences between the prior art and the claims at issue be ascertained; and (3) the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. See "Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*," 72 Fed. Reg. 57526, 57527 (Oct. 10, 2007) (hereinafter "Guidelines"). In an obviousness analysis, the controlling question is simply whether the differences between the prior art and the claimed invention are such that, despite the differences, the invention would have been obvious to one of ordinary skill in the art. See Guidelines at 57528 (The proper analysis is whether the claimed invention would have been obvious to one of ordinary skill in the art after consideration of all the facts, particularly the differences between the claims and the prior art). Applicant submits the claims recite certain features that are not disclosed or otherwise suggested by the references of record or the knowledge generally available to one of ordinary skill in the art. These features represent, among others, the differences between the art of record and the claimed invention. Applicant submits that

these inventive features render the claimed invention as a whole non-obvious over the art of record.

DOBRIN teaches modifying physical properties of a nonwoven fibrous web for use as a component of a disposable absorbent article. The physical properties of the nonwoven web are modified by a texturing method that includes incremental stretching similar to that described by the present invention that produces similar protruding elements. Unlike the present invention, the nonwoven web of DOBRIN is attached to a second component (i.e. a film) to form functional and structural elements of a disposable absorbent article. (Column 5, lines 27-40) Although it is not clear what the Office Action is referring to when it infers that the first embodiment of DOBRIN does not require a second component; it appears that the first embodiment that the Office Action refers to is the nonwoven layer that is eventually attached to a second layer. Nevertheless, even though DOBRIN does not explicitly disclose that the second film component serves as reinforcement to the protruded elements formed, one of ordinary skill in the art would know that attaching the nonwoven to a film restrains the nonwoven in the x-y plane which has the effect of maintaining the texture formed in the nonwoven. Therefore, the textured nonwoven of DOBRIN does not require reinforcement means to lock the protruding elements as claimed. In addition, DOBRIN is directed to disposable absorbent articles comprising soft, cloth-like, liquid impervious backsheets and other absorbent article components such as topsheets, cuffs and other structural members (Column 4, lines 16-20). The embossments of SMITH can result in stiff, boardy regions (Column 1, lines 47-50) which are undesirable for soft, cloth-like components forming disposable absorbent articles. Therefore, not only would one skilled in the art have no reason to combine DOBRIN with secondary reference SMITH to strengthen the material of DOBRIN, combining the textured substrate of DOBRIN with the embossed nonwoven wipe fabric of SMITH would result in a material that is not desirable for DOBRIN's intended use.

Further, the combination of DOBRIN and SMITH does not result in the claimed invention. The second regions of the claimed invention comprise strained protruding elements which are capable of greater geometric deformation than the first regions. (Page 6, lines 4-27 of the specification) The strained protruding elements are reinforced to withstand deformation caused by external forces. Column 3, lines 31-45 of SMITH describes embossed, compacted fibrous areas which lie in planes of substantially parallel

top and bottom surfaces of a nonwoven fabric. These compacted areas of SMITH are compressed as opposed to being strained like the second regions of the nonwoven claimed. The Office Action alleges that Figures 9 and 11 of SMITH clearly show that the fibers of the nonwoven are being strained at points 40, 42 and 68 as the fibers are being pulled between adjacent teeth of the forming apparatus. Attorney for the Applicant respectfully disagrees. The embossing process described in SMITH involves compaction of fibers as the fibers are embossed between the teeth at points 40, 42, and 68. Fibers are compressed and not pulled between the teeth of the forming apparatus of SMITH.

The combination of DOBRIN and SMITH does not result in "a strained region forming a protruding element extending beyond a plane of the substrate locked by a reinforcing means" as claimed. In fact, Column 3, lines 31-36, of SMITH teaches that the compacted areas 22 and 24 form a pattern of intermittently spaced, separate and discrete, embossed, compacted fibrous areas which lie in the planes of the substantially parallel top and bottom surfaces of the nonwoven fabric, whereas the unembossed, uncompacted portions 28, 30 lie between these planes and hingedly connect the embossed, compacted areas. Thus, even though the embossed compacted areas of SMITH may include a resin (Column 8, lines 4-6), they are hingedly connected, and therefore, cannot be construed as locked protruding elements as claimed.

Finally, neither DOBRIN nor SMITH teaches or suggests a nonwoven substrate or wet wipe that retain its thickness when wet. The Office combines CURRO with DOBRIN and SMITH explaining that CURRO discloses a laminate of nonwoven webs that is capable of multiple uses such as personal absorbent articles and wet wipes. While CURRO may disclose a laminate web that can be used as a wet wipe, it does not does not disclose other pertinent features to compensate for the aforementioned deficiencies of DOBRIN and SMITH in order to arrive at the claimed invention.

Therefore, the combination of DOBRIN, SMITH and CURRO does not teach or suggest all of the claim limitations of claims 1-11. Consequently, claims 1-11 are unobvious over DOBRIN in view of SMITH and CURRO.

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SUMMARY

In view of all of the above, Appellant respectfully submits that Claims 1 -11 are not anticipated by SMITH (US 3,616,157) and are patentable over DOBRIN (US 6,383,431) in view of SMITH (US 3,616,157) and CURRO (US 2002/0034912 A1). Appellants ask the board to carefully consider the arguments above, and, if the invention is found to be unanticipated and unobvious, to promptly permit the claims to proceed to allowance.

Respectfully submitted,
THE PROCTER & GAMBLE COMPANY

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Signature

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CLAIMS APPENDIX

1. A nonwoven substrate comprising at least one undeformed first region and at least one second region, wherein the second region comprises a strained region forming a protruding element extending beyond a surface plane of the substrate, the protruding element locked by a reinforcing means in the second region selected from the group consisting of thermal bonding, chemical bonding, ionic bonding, adhesive bonding and combinations thereof, wherein the nonwoven substrate retains its thickness when wet.
2. The nonwoven substrate of Claim 1 wherein the nonwoven substrate comprises at least about 20% thermoplastic material and the protruding elements of the second region are locked by means of thermal bonding.
3. The nonwoven substrate of Claim 2 wherein the second region contains furrows and ridges.
4. The nonwoven substrate of Claim 3 wherein the second region provides abrasivity when the nonwoven substrate is utilized in cleaning.
5. A wet wipe comprising the nonwoven substrate of Claim 1.
6. A wet wipe of Claim 5 wherein a liquid is applied to the nonwoven substrate before use.
7. A pre-moistened wet wipe of Claim 5 wherein a liquid is applied to the nonwoven substrate prior to packaging.
8. The wet wipe of Claim 5 wherein the nonwoven substrate is a laminate of webs comprising of at least one fibrous web.

9. The wet wipe of Claim 7 wherein the amount of liquid added is in the range of from about 10% to about 500% by weight of the dry nonwoven substrate.
10. A wet wipe having a basis weight and a thickness, comprising:
 - a nonwoven substrate which is subject to a texturing process which does not increase the basis weight, the nonwoven substrate comprising at least one undeformed first region and at least one second region, wherein the second region comprises a strained region forming a protruding element extending beyond the surface plane of the substrate, the protruding element locked by a reinforcing means in the second region, and
 - a liquid,wherein the thickness of said wet wipe is at least about 30% greater than the thickness of a wet textured wet wipe which does not include protruding elements locked by a reinforcing means.
11. The wet wipe of Claim 10 wherein the thickness of said wet wipe after being subject to external forces is at least about 30% greater than the thickness of the wet non-textured nonwoven substrate after being subject to external forces.

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EVIDENCE APPENDIX

None

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RELATED PROCEEDINGS APPENDIX

None